Environmental Impact Assessments in Canada

A Review of Current Legislation and Practice

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Introduction

During the past three years the Federal Government and most provincial jurisdictions in Canada have introduced requirements for the environmental impact assessment of various types of major developments. In some instances the policy applies only to government-initiated projects, in other cases it applies to a full range of government and private developments.

The reasons for requiring such assessments are generally attributed to the need to ensure that developments, particularly large-scale ones, proceed only on the basis of a reasonably complete understanding of their possible effects on the natural environment and on society at large.

During the 1960's, considerable strides were made in most provinces in addressing the problems of air, water, and land pollution. The introduction of legislation and various improved standards attempted to place the responsibility for such pollution on the person or industry causing it.

During the 1970's the emphasis has shifted somewhat to require that a developer should be increasingly responsible for identifying and managing all "external" impacts that might be caused as a result of development, in addition to the normal development costs directly attributed to a project. Such "external" impacts can include both adverse effects such as air and water pollution, loss or impairment of other natural resources, and adverse socio-economic effects in nearby communities, particularly during the construction period, and the benefits of a project such as improved habitat associated with a transmission-line, recreational opportunities created by a new reservoir, or economic spin-offs for local communities.

The initial impetus for carrying out such studies came from the United States, where the *National Environmental Policy Act* was passed in 1969. Although Canada has no comparable legislation, the Federal and Provincial Governments are in the process of developing workable policies and procedures. Most Provincial Governments, and to a large extent the development agencies themselves, now appear to be accepting the need for such environmental assessments as part of the normal process of planning for a major development.

Following a brief summary section, the report sets out in general terms the major steps that have been taken by each Provincial Government and by the Federal Government in establishing their respective policies and procedures for environmental assessment.

Each section is divided into four topics dealing with:

1. General Legislation.
2. Government Policy.
3. Administration.
4. Implementation and Enforcement.

Summary of Present Policies

In reviewing the actions that have been taken by provincial jurisdictions to date, there appears to be a fair degree of unanimity in terms of general approach to the problem with a considerable variation when considering specific details.

The following major conclusions can be drawn from the information provided in the report:

(i) All Provincial Governments in Canada and the Federal Government have commenced a program of environmental impact assessments.

(ii) With the exception of the *Environmental Assessment Act, 1975*, of Ontario (which is not yet fully in force) and section 8 of the *Land Surface Conservation and Reclamation Act, 1973*, of Alberta, there is no legislation in Canada specifically requiring environmental impacts to be assessed. Thus, with the noted exceptions, existing environmental policies are wholly dependent upon administrative and executive decisions of the Federal and Provincial Cabinets.

(iii) In many instances, environmental impact assessments are viewed as part of an over-all planning process for the development of large-scale projects, progressing from overview feasibility studies through more detailed design and assessment to a stage where permits and approvals are required. In these cases, an integration of engineering and environmental data at an early date is encouraged as a means of achieving a balance between the proposed development and environmental quality.

(iv) In some provinces environmental assessments apply only to developments initiated by provincial agencies or Crown corporations. In others they apply to all major developments of a specific type such as power plants, railways, pipelines, etc., over a certain size.

(v) Most provinces are in the process of establishing guidelines to indicate the procedures to be followed and types of study needed to satisfy provincial requirements.

(vi) The level at which decisions are taken on major projects varies from province to province. In most cases Cabinet provides an "umbrella" decision to determine whether a project should or should not be developed, followed by detailed land use and environmental decisions

made by appointed officials under specific legislation.

(vii) Most provinces are in the process of establishing procedures for ensuring the implementation and enforcement of the findings of environmental impact studies.

However, the methods adopted vary considerably from one jurisdiction to another. For example, biologists or environmental engineers have been hired by regulatory agencies to encourage adherence to environmental conditions during construction by providing environmental education to contractors' crews and by inspecting construction activities as they proceed. In other cases, adherence to environmental conditions during project construction has been made the responsibility of the project proponent.

SUMMARY OF LEGISLATION AND GUIDELINES APPLICABLE TO ENVIRONMENTAL IMPACT ASSESSMENT

Government	Minister and Departments Responsible for Environmental Impact Assessments	Major Environmental Assessment Legislation/Policies	Guidelines Completed or in Preparation
CANADA	ENVIRONMENT Screening and Co-ordinating Committees. Environmental Review Board. Environmental Assessment Panels.	*Government Organization Act, 1970.* Cabinet decision 20/12/73 establishing Environmental Assessment and Review Process (EARP).	General Guidelines for the preparation of initial environmental evaluation reports for: Oil and Gas Exploration and Production. Linear Transmission— Highways and Railways. Electrical Power Transmission Lines. Oil and Gas Pipelines. Hydro-electric and Other Water Development Projects. Nuclear Power Generation Projects. Airports. Ports. Mining Developments. Industrial Developments.
	NATIONAL ENERGY BOARD	*National Energy Board Act.* R.S. 1970.	Environmental Information Guidelines for Pipelines.
	ATOMIC ENERGY CONTROL BOARD	*Atomic Energy Control Act.* R.S. 1970.	Guide to the Licensing of Uranium and Thorium Mine-Mill Facilities.
BRITISH COLUMBIA	ENVIRONMENT Environment and Land Use Committee Secretariat (major co-ordination). Land Management Branch (use of Crown lands). Water Rights Branch (use of water resources). Pollution Control Branch (pollution objectives). Mines and Petroleum Resources Reclamation Division.	*Environment and Land Use Act,* 1971. *Land Act,* 1970. *Pollution Control Act.* *Water Act,* R.S. 1960. *Coal Mines Regulation Act,* 1969. *Mines Regulation Act,* 1967 (for land surface reclamation).	Guidelines for Environmental Impact Assessment of Power Projects. Coal Development Guidelines. Guidelines for Linear Developments. Guidelines for Environmental Impact. Control of Development on B.C. Crown Lands.
ALBERTA	ENVIRONMENT Environmental Co-ordination Service.	*Land Surface Conservation and Reclamation Act, 1973.*	Alberta Environmental Impact Assessment System Guidelines.

SASKATCHEWAN	ENVIRONMENT Environmental Impact Assessment Branch.	*Department of the Environment Act.*	Environmental Impact Assessment Policy and Guidelines. Administrative Procedures being prepared. Content Guidelines being prepared.
MANITOBA	MINES, RESOURCES AND ENVIRONMENTAL MANAGEMENT Clean Environment Commission. Environmental Management Division. Environmental Council. Manitoba Environmental Assessment and Review Agency. Mineral Resources Division (land surface reclamation).	Manitoba Environmental Assessment and Review Process established by Cabinet. *Clean Environment Act, 1972.* *Mines Act* (land surface reclamation).	Guidelines for the Environmental Impact Assessment of electrical transmission-lines, nuclear power plants, gas pipelines, heavy water plants, and highways.
ONTARIO	ENVIRONMENT Environmental Assessment and Planning. Environment Assessment Board.	*Environmental Assessment Act, 1975.* *Mining Act* (for land surface reclamation). *Environmental Protection Act, 1972.* *Ontario Water Resources Act.*	Environmental Assessment Guidelines: Content of the Environmental Assessment Document.
QUEBEC	ENVIRONMENT Environment Protection Services. Advisory Council on the Environment. QUEBEC PLANNING DEVELOPMENT BUREAU	*Environment Quality Act, 1972.*	Environment Quality Act (General) Regulations.
NEW BRUNSWICK	ENVIRONMENT Environmental Services Branch.	*Clean Environment Act.*	Environmental Impact Assessment in New Brunswick.
NOVA SCOTIA	ENVIRONMENT	*Environmental Protection Act, 1973.* *Water Act, 1967.*	Guidelines for pit, quarry, and mining operations being prepared. Guidelines for Asphalt Plants. *Pesticide Control Act.* Guidelines for Environmental Assessment.
PRINCE EDWARD ISLAND	ENVIRONMENT	Executive Council Minute 14/2/73 requiring Environmental Impact Statements. *Environmental Protection Act.*	Guidelines for Livestock Manure and Waste Management. Guidelines for Asphalt Plants. Guidelines for Gravel Pits and Sand Mining Operations.
NEWFOUNDLAND AND LABRADOR	CONSUMER AFFAIRS AND ENVIRONMENT	*Provincial Affairs and Environment Act, 1973.*	Guidelines for Environmental Impact Statements.

Government of Canada

General Legislation

There is no general legislation requiring the preparation of environmental impact assessments for projects in which federal agencies are involved.

The *Government Organization Act, 1970,* which created the Department of the Environment, provided the Minister with broad powers to initiate the protection and enhancement of the environment.

The *National Energy Board Act,* R.S. 1970, charges the National Energy Board with the duty to regulate the development of interprovincial and international pipelines. The Board has broadly interpreted its mandate to "require the company to furnish any further or other information that the Board considers necessary" to include the requirement for environmental impact assessments.

The *Atomic Energy Control Act,* R.S. 1970, established the Atomic Energy Control Board to regulate the health, safety, and security aspects of atomic energy matters in Canada. They are concerned with the entire fuel cycle of radioactive materials from mining, through use to waste disposal.

Government Policy

The Federal Environmental Assessment and Review Process is based on a Cabinet Decision of December 20, 1973. It covers projects initiated by Federal departments and agencies, those for which Federal funds are solicited, and those involving Federal property. All Federal organizations are bound by the Cabinet Decision except proprietary Crown corporations and regulatory agencies which are invited to participate.

Administration

The initiator of a project is responsible for preparing an environmental assessment of the likely effects of a proposed development, using technical and procedural guidelines prepared by Environment Canada. Such guidelines have been prepared for mine project categories, as follows:

Oil and Gas Exploration and Production.

Linear Transmission—

(*a*) Highways and Railways;

(*b*) Electrical Power Transmission-lines;

(*c*) Oil and Gas Pipelines.

Hydro Electric and Other Water Development Projects.

Fossil Fuel Power Generation.

Nuclear Power Generating Station.

Airports.

Ports.

Mining Developments.

Industrial Developments.

Those projects, which the initiating or sponsoring departments consider significant, are subject to revue individually by separate Environmental Assessment Panels, with a permanent Chairman from the Department of the Environment.

Each Panel issues guidelines for the preparation of an Environmental Impact statement by the initiator or proponent of the project. Both the guidelines and EIS are made available to the public, and public meetings are arranged to obtain the response of interested parties. The Panel then prepares a report for the Minister of Fisheries and the Environment based on the review of the impact statement, the public response, and any other information it requires. The report may recommend acceptance of the project, rejection, or acceptance with qualifying conditions. The Minister, in co-operation with his colleagues involved with the project, makes the final decision. Generally the Panel report is also made public, although in unusual cases the Ministers involved may decide that it is advisable not to release information on a project.

To date, 17 separate Panels are in operation reviewing proposed projects considered significant environmentally by the initiating agencies. The work of one Panel formed to review the Nuclear Generating Station at Point Lepreau, N.B., has essentially been completed. In exceptional cases, the Minister may establish an Environmental Review Board to review a project of great public interest. The members for such a Board would be drawn entirely from outside the Federal Public Service.

The Screening and Co-ordinating Committees perform an advisory role in the area of environmental assessment and review.

As the agency responsible for authorizing the construction of interprovincial and international pipelines, the National Energy Board has established "Environmental Information Guidelines for Pipelines" as a means of ensuring that environmental concerns are fully reviewed in association with Environment Canada.

The Atomic Energy Control Board has prepared a "Guide to the Licensing of Uranium and Thorium Mine-Mill Facilities."

Implementation and Enforcement

Since the Federal process is based on a Cabinet Decision, there is no enforcement in the legal sense. However, each Federal department and agency involved is responsible for implementing EARP, while the Minister of Fisheries and the Environment is responsible for evaluating the performance of the process.

Province of British Columbia

General Legislation

There is no one piece of legislation in the Province of British Columbia requiring the preparation of environmental impact assessments prior to carrying out major developments. However, there are four Acts under the administration of the Minister of the Environment which provide the statutory basis for requiring environmental assessments. They are the *Environment and Land Use Act*, which is a general Act providing broad powers to a Committee of Cabinet, and three more specific Acts—the *Land Act* and the *Water Act*, under which proponents must obtain permits for the use of Crown land and water resources; and the *Pollution Control Act*, which regulates the emission of pollutants.

In addition, the *Coal Mines Regulation Act* and the *Mines Regulation Act* set out the procedures under which the surface reclamation of mines must be carried out.

Environment and Land Use Act, 1971, Chap. 17

Under this Act "environment" is defined as being all the external conditions or influences under which man, animals, and plants live or are developed.

The Act establishes the Environment and Land Use Committee, comprising the Ministers of the Environment (Chairman), Agriculture, Economic Development, Forests, Health, Highways and Public Works, Mines and Petroleum Resources, Municipal Affairs and Housing, and Recreation and Conservation.

The Committee is empowered to inquire into and study any matter pertaining to the environment or land use, prepare reports, and make recommendations to the Lieutenant-Governor in Council. Further, it is the Committee's duty to

(*a*) establish and recommend programs designed to foster increased public concern and awareness of the environment.

(*b*) ensure that all the aspects of the preservation and maintenance of the natural environment are fully considered in the administration of land use and resource development commensurate with a maximum beneficial land use, and minimize and prevent waste of such resources, and despoliation of the environment occasioned thereby.

On the recommendation of the Committee, the Lieutenant-Governor in Council may make, notwithstanding any other Act or regulation, such orders respecting the environment, or land use, as he considers necessary.

Land Act, 1970, Chap. 17, as amended

This Act establishes the procedures for the disposal of Crown lands. The Minister may require an applicant to submit feasibility studies and other information in support of his application.

Water Act, R.S. 1960, Chap. 405, as amended

Under this Act a licence must be obtained from the Comptroller of Water Rights for the use of any surface waters which are vested in the Crown. Environmental impact assessments may be required to assist in determining whether such a licence should be issued. The Comptroller is authorized to hold public hearings, where necessary. Decisions of the Comptroller may be appealed to a tribunal of Cabinet Ministers. However, an appeal does not act as a stay of execution.

Pollution Control Act, Chap. 34, as amended

This Act requires a permit or approval from the Director of the Pollution Control Branch for any discharge of effluent or refuse, or emission of air contaminants. Appeals lie to the Pollution Control Board, the Lieutenant-Governor in Council, and the Supreme Court. Regulations under the Act specify certain exemptions and set out the procedure for obtaining a permit. Pollution control objectives have been published for various industries.

Government Policy

The Government of British Columbia has initiated the requirement for carrying out environmental, social, and economic impact studies as part of the feasibility and planning process for all major developments proposed in the Province.

A Secretariat to the Environment and Land Use Committee provides a co-ordinating role among Government Ministries in commenting on terms of reference for such studies and in reviewing the completed assessments. As an assistance to potential developers, the ELUC has published *Guidelines for Coal Development* and is in the process of preparing *Guidelines for Linear Developments*. These guidelines provide a three-step reporting process which is intended to move a project assessment systematically from a general overview to more specific definition of impacts and associated plans. Public participation is considered to be an integral part of this process. Following completion of the three reporting stages and review, a developer will be in a position to apply for permits required under various Provincial statutes.

Administration

The administration of environmental impact assessment policies in British Columbia is mainly carried out by the Ministry of the Environment through its separate agencies—the Environment and Land Use Committee Secretariat, the Water Rights Branch, the Land Management Branch, and the Pollution Control Branch.

Where possible, a developer is encouraged to avoid adverse impacts on the environment or at least to attempt to mitigate the potential problems they might cause. Where such actions are not possible, developers are increasingly being expected to provide some form of compensation for the

losses they cause. For example, if valuable wildlife habitat or spawning streams are lost due to a reservoir, the agency causing the loss will be expected to provide compensation to allow for enhancement of other areas of wildlife habitat or to improve other stream capabilities for spawning.

Implementation and Enforcement

The monitoring of the environmental effects of the construction activity of major developments has not yet been fully worked out in the Province. To date, several methods of implementation and enforcement have been used involving, in some instances, the use of professional biologists to monitor the impact of development on the natural environment and, in other cases, the use of project impact committees to advise on both the environmental and social effects of construction activities. At present each project is viewed and handled on an *ad hoc* basis.

During the operational phase of a project, regular inspection and monitoring are carried out by the appropriate regulatory agency, generally either the Pollution Control Branch in the case of effluent emissions, and the Water Rights Branch for projects involving the use of surface waters.

Province of Alberta

General Legislation

The legislative authority governing the preparation and submission of environmental impact assessment reports is contained in section 8 of the *Land Surface Conservation and Reclamation Act, 1973*. The Act authorizes the Minister of the Environment to order the preparation and submission of reports containing an assessment of the environmental impact of proposed developments. Generally, the Act also specified factors to be included in the reports, such as impacts on the conservation, management, and utilization of natural resources; the prevention and control of pollution; economic factors that relate to environmental matters; and preservation of natural resources for their æsthetic value. The consideration of alternatives to proposed developments is also identified as being a part of an environmental impact assessment report.

Government Policy

The Government of Alberta is committed to achieving a balance between resource development and environmental quality. Accordingly, the purpose of the Environmental Impact Assessment System is to provide comprehensive information to facilitate the early identification and resolution of potentially significant adverse environmental effects of proposed resource development before environmental damage occurs.

Guidelines for carrying out environmental impact assessments have been prepared for the assistance of developers. Initial proponent/government contact for environmental assessments occurs through the Environmental Coordination Service of the Alberta Department of the Environment.

Administration

In general, Environmental Impact Assessments are often requested where prior Cabinet approval is required. Where Cabinet approval is not required, environmental concerns can usually be dealt with through existing legislation and referral systems to develop an environmental protection plan.

The Environmental Impact Assessment System of the Alberta Government has been designed to integrate with the existing licensing, permitting, and enforcement agencies. Environmental Impact Assessments are carried out at the direction of the Minister of the Environment and reviewed through co-ordination by the Department of the Environment. After approval of the assessment, the permitting and licensing agencies use the Environmental Impact Assessment to establish an effective environmental protection plan.

Implementation and Enforcement

The Province of Alberta has several licensing and permitting agencies which carry out routine and special environmental monitoring. The Pollution

Control Division of the Department of the Environment monitors and enforces air and water quality standards. The Water Resources Division manages stream flows and diversion. The Energy Resources Conservation Board inspects and enforces technical and safety standards. The Land Conservation and Reclamation Council, composed of the Department of the Environment and Energy and Natural Resources, is responsible for the reclamation of lands in the Province. Reclamation plans are reviewed in detail before approval by an Interdepartmental Committee, and field crews carry out inspection and monitoring of all ongoing reclamation.

Province of Saskatchewan

General Legislation

At present there is no legislation dealing specifically with environmental impact assessments in Saskatchewan. However, the basis for a policy rests with the *Department of the Environment Act,* which provides that:

> "For the purposes of enhancing and protecting the quality of the environment, the Minister may . . . require a government agency, municipality or person to obtain specified data with respect to the environment within an area surrounding the location of an undertaking proposed by the agency, municipality or person and to file the data with the Minister".

The legislation also provides for the holding of public hearings or the appointment of a hearing board with respect to the " . . . management, use or protection of the environment".

Government Policy

The Department is currently finalizing the impact assessment policy, following a public review program of the draft policy carried out in the fall and winter of 1976/77.

The policy provides that an impact assessment will be required for all development projects which

(*a*) will have a major impact on a specific geographic area; or

(*b*) will limit or pre-empt the use of a provincial resource; or

(*c*) are, or may be, of major public concern.

The policy provides that the project proponent will be responsible for carrying out the impact assessment according to guidelines and procedures established by Environment Saskatchewan.

The draft policy is being applied to all projects during the interim period until it is finalized.

Administration

The policy is administered by the Environmental Impact Assessment Branch of the Department of the Environment.

An interdepartmental Review Panel appointed by the respective government departments having a regulatory role in Saskatchewan activities or developments serves in an advisory capacity to the Impact Assessment Branch in such matters as determining the need for an impact assessment, the depth of study required, and the adequacy of submitted impact statements.

The public is advised of project applications and the decision of the Review Panel. All assessment reports are made public and public hearings held where the public requests or the Minister deems it necessary.

Implementation and Enforcement

There are no specific regulations relating to environmental impact assessments which govern implementation or enforcement of mitigation measures identified in an assessment. Such measures are applied through the normal regulating requirements of the *Water Pollution Control Act*, the *Air Pollution Control Act*, the *Water Rights Act*, or similar resource-oriented legislation. Surveillance is normally the responsibility of the appropriate regulatory agency.

Province of Manitoba

General Legislation

There is no general legislation requiring the preparation of environmental impact assessments for projects in which provincial agencies are involved.

The *Clean Environment Act, 1972*, C. 76, provides the Minister with "general supervision and control over all matters relating to the preservation and improvement of the environment and the prevention and control of contamination of the environment". Under the Act, "environment" means the air, water, or soil. The Act also establishes a Clean Environment Commission which is charged with considering all proposals which may result in the discharge or emission of contaminants into the environment. Under the Act, contaminant is defined as any solid, liquid, gas, waste, odour, heat, sound, vibration, radiation, or a combination of them that

(1) is foreign to or in excess of the natural constituents of the environments; or

(2) affects the natural, physical, chemical, or biological quality of the environment; or

(3) is or is likely to be injurious to the health or safety of a person; or

(4) is or is likely to be injurious or damaging to property; or

(5) is or is likely to be injurious or damaging to plant or animal life; or

(6) interferes or is likely to interfere with visibility; or

(7) interferes or is likely to interfere with the normal conduct of business; or

(8) interferes or is likely to interfere with the comfort, well-being, or enjoyment of a person.

The Commission may not approve applications unless they comply with prescribed limits of contamination.

Government Policy

The Government of Manitoba is committed to carrying out environmental impact assessments for major development proposals by Provincial departments and Crown corporations. An Environmental Assessment and Review Process has been established for this purpose to cover all developments which may have a significant impact upon the environment.

Administration

In the Province of Manitoba, the primary responsibility for the preservation of environmental quality rests with the Minister of Mines, Resources and Environmental Management. The *Clean Environment Act* and the Manitoba Environmental Assessment and Review Process are the means through which the Minister exercises his responsibilities for the preservation of the environment.

The Minister exercises supervision and control through four administrative

bodies. The first is the Clean Environment Commission, a quasi-judicial, independent body with an investigatory and standard-setting function. The second is the Environmental Management Division, the technical and administrative arm of the Minister. The third is the Environmental Council, a body comprised of approximately 95 citizen members. The Council may advise the Minister on any matter of environmental concern. The fourth is the Manitoba Environmental Assessment and Review Agency. This Agency reviews Provincial Government projects for their environmental impacts and recommends to Cabinet through the Minister whether a project should be allowed to proceed, amended in some form or not allowed to proceed.

The Agency consists of the Deputy Minister of the Department of Mines, Resources and Environmental Management as Chairman, together with Assistant Deputy Ministers of Environmental Management, Health, and Finance and a representative of the proponent.

Implementation and Enforcement

Under the *Clean Environment Act*, enforcement is effected by regular inspection and monitoring to ensure compliance. The failure to comply with existing regulations and (or) Clean Environment Commission Orders may result in the offender being prosecuted before the courts.

In the case of assessments reviewed by the Manitoba Environmental Assessment and Review Agency, implementation is the responsibility of the proponent. Enforcement is effected by normal inspection and surveillance. Failure to comply with the Environmental Assessment and Review Process is dealt with through ministerial intervention.

Province of Ontario

General Legislation

Ontario is so far the only Province to have introduced legislation specifically dealing with environmental impact assessments. This legislation is embodied in *The Environmental Assessment Act, 1975*, an Act which received Royal Assent in July 1975, and which was proclaimed in force for public sector activities on October 20, 1976. The purpose of the Act is to formalize the approach of incorporating environmental considerations early in the decision-making process so that site selection and project design and construction can reflect them.

Under the Act "environment" is defined as meaning

(i) air, land, or water;

(ii) plant and animal life, including man;

(iii) the social, economic, and cultural conditions that influence the life of man or a community;

(iv) any building, structure, machine, or other device or thing made by man;

(v) any solid, liquid, gas, odour, heat, sound, vibration, or radiation resulting directly or indirectly from the activities of man; or

(vi) any part or combination of the foregoing and the interrelationship between any two or more of them,

in or of Ontario.

The Act states that the proponent of any project or proposal to which it applies (except feasibility studies) may not proceed, receive approvals under any other Act, or receive Provincial loans or guarantees until the Minister of Environment has (*a*) accepted an environmental assessment, and (*b*) given approval to proceed. What an environmental assessment should consists of is broadly described by the Act.

The proclamation of the Act on October 20, 1976, made it applicable to projects or proposals of the province, public bodies, and municipalities. A further proclamation is required to extend the Act to the private sector. Once this second proclamation is made, the Act may then be applied to those major commercial or business enterprises or activities which are defined and designated by regulation. For both public and private activities, exemptions may be granted by order or by regulation.

The main statute with respect to pollution control is the *Environmental Protection Act*, passed in 1972. In addition to important general provisions, the Act contains specific provisions regarding waste management, litter control, motor-vehicles, abandoned motor-vehicles, water pollution, and sewerage works. The *Environmental Protection Act* also overrides the Ontario *Water Resources Act* which, none the less, remains the most important Act with respect to the control of water pollution.

Government Policy

By enacting the *Environmental Assessment Act*, the Government of Ontario has committed itself to the introduction of a policy of assessing environmental impacts prior to permitting major development projects to proceed.

The intention is to apply the Act to phases with provincial departments and agencies having to do environmental assessments first, followed by municipalities, and finally the private sector. The Act was originally expected to be fully implemented within 18 months, but there have been delays for three apparent reasons: (1) the lengthy procedure of drafting regulations for the Act; (2) resistance from some government departments; and (3) a desire to give the Environment Assessment Board time to gain experience. It now appears that the Act will not be generally extended to the private sector for at least another year, but the Ontario Government has indicated that individual private sector projects may be brought under the Act, in the intervening period, when it is in the public interest to do so.

Administration

Detailed administrative procedures for obtaining the Minister's approval for an environmental assessment and for the project itself are incorporated in the *Environmental Assessment Act*.

After receiving an environmental assessment, the Minister must have it reviewed. Further, he is required to give public notice of (*a*) receiving the assessment, (*b*) completion of the review, and (*c*) places where both may be inspected. Any person may inspect both documents and make a written submission within 30 days. Hearings must be held if they are requested by either the Minister or any person. The Minister may invalidate any person's request for a hearing if he is of the opinion that the request is frivolous or vexatious. People making submissions acquire the right to be notified at subsequent steps of the assessment, approval, and hearing (when held) procedures.

Hearings are held by an Environment Assessment Board established by the Act (Part III). The Board is composed of five or more persons (who may *not* be public servants) appointed by the Lieutenant-General in Council for fixed terms. Board decisions are final unless altered by the Minister with the approval of Cabinet, within 28 days. Hearings are open to the public unless the Board determines the desirability of public hearings is outweighed by the need to avoid disclosure.

The Minister (or the Board, if hearings are held) must either accept, or amend and accept the environmental assessment. If the assessment is unsatisfactory, the proponent may be required to do specified additional research, etc. (after being given notice). Once the assessment has been accepted, the Minister, with the approval of Cabinet (or the Board), must rule whether the proponent should be granted approval to proceed, with or without conditions. If no hearing is required when the opportunity first arises, those persons who

made submissions as mentioned previously are given additional opportunities to require hearings (*a*) if an assessment is to be amended and (*b*) when consideration is being given to granting an approval to proceed. Finally, the Act gives the Minister powers to appoint officers, conduct or finance research or studies, to appoint committees, etc., for the purpose of the Act.

Implementation and Enforcement

Section 14 of the *Environmental Assessment Act* allows terms and conditions to be placed on project approvals. These conditions can be broad enough in scope to allow the establishment of monitoring programs where necessary.

The Ministry of the Environment favours writing environmental considerations into contract specifications and drawings. On occasion, the Ministry has required environmental inspectors to overview construction projects. For example, this occurred with the 78-mile York/Durham sewer trunkline and the Interprovincial pipeline between Sarnia and Montreal.

Province of Quebec

General Legislation

The statutory authorization for requiring environmental assessments in Quebec is section 22 of the *Environment Quality Act*, which states:

> "The Director shall, in support of an application relating to certain classes of industries, projects or activities determined by regulation of the Lieutenant-Governor in Council, require a study to be made on the impact that the carrying out of the project will have on the environment and may require the applicant to carry out certain research or experiments which he indicates respecting the project, the whole in accordance with the terms and conditions prescribed by regulation of the Lieutenant-Governor in Council. He may, finally, require from the applicant any supplementary information he considers pertinent to the object of the application".

Under the Act "environment" is defined as "the water, atmosphere and soil or a combination of any of them, or, generally, the ambient milieu with which living species have dynamic relations".

Government Policy

The regulation respecting the administration of the *Environment Quality Act* requires that environmental assessments be done for proposed railroads; power transmission-lines carrying over 315 kv, pipelines, and gas pipelines 30 centimeters in diameter or greater. Further, two draft regulations propose that environmental impact studies be required for (*a*) quarry and sand pit projects which are likely to affect migratory birds and spawning grounds for fish, and (*b*) new pulp and paper mills. A comprehensive environmental impact regulation is presently being drafted that will include a list of projects for which impact statements would be mandatory and specifications governing their content. Developments known to have major environmental impact will be listed irrespective of the initiator (private enterprise, governmental department, Crown corporation, etc.).

Administration

The Minister of Environment is responsible for the elaboration, implementation, and co-ordination of the environmental protection policy. This mandate is derived almost entirely from the *Environment Quality Act*, which contains general provision for the protection of the environment and specific provisions for the control of water, air, and noise pollution and for other purposes. While the Act is primarily pollution control legislation, its general provisions establish an Advisory Council on the Environment and provide the statutory authority for requiring environmental assessments and reclamation plans. The Act also establishes the Environment Protection Services which are largely responsible for the administration of the Act.

A particularly interesting facet of the Quebec experience is the strong emphasis placed on planning at the regional level and the complex mechanism that has been developed for this purpose.

The Quebec Planning and Development Bureau, responsible for the preparation of provincial and regional plans, also co-ordinates the planning of other government departments, including resource departments, and settles differences between them. Further, environmental conservation is one of the three main objectives which the Bureau's planning efforts are to reflect.

The major emphasis of provincial planning has been at the level of the four planning regions and the ten administrative districts they contain. This emphasis reflects both a desire for decentralized planning and the failure of past efforts at master planning for the Province as a whole. The James Bay area is not included within any planning region and planning within the area is temporarily entirely the responsibility of the James Bay Development Corporation. The over-all efficiency of planning in the province has been limited by a lack of adequate legislation.

To ensure that planning is co-ordinated within each region, regional administrative conferences have been established composed of the regional co-ordinators of the Quebec Planning and Development Bureau and other government departments. The planning done by these conferences must also integrate the recommendations of regional development councils which are autonomous organizations representing the citizens in each administrative region.

Implementation and Enforcement

Until a regulation comes into force, the Act provides the Director with enough discretionary power to request any information he considers pertinent before issuing a certificate of authorization in accordance with the Act. On the basis of this authority, Environmental Impact Assessments have been requested for some major projects.

Province of New Brunswick

General Legislation

There is no specific legislation in New Brunswick requiring environmental impact assessments to be carried out. However, the *Clean Environment Act* and the *Health Act* establish certain requirements that have to be met by prospective developers.

Government Policy

The Government of New Brunswick adopted a policy on environmental assessment procedures in October 1975. Under the policy all major developments being considered by a provincial agency, department, or Crown corporation must have an environmental impact assessment carried out prior to a decision on implementation of the project. If the project proceeds, environmental design studies are then required to ensure that environmental damages are minimized and benefits are enhanced.

The definition of "environment" is construed to include socio-economic impacts as well as impacts on the natural environment.

Administration

The Department of the Environment is responsible for screening potential projects to determine whether they are subject to the environmental assessment process. Assessments are generally expected to take place in two phases. Phase I is basically an environmental feasibility study carried out concurrently with engineering and economic feasibility studies. If a decision is taken to proceed with a project, a detailed assessment is carried out in Phase II with the main purpose of suggesting specific measures for ameliorating undesirable effects of the project and enhancing any potential environmental benefits.

The various studies are funded by the project proponent and carried out in accordance with guidelines and terms of reference prepared by the Department of the Environment.

The Department of the Environment is also responsible for reviewing the studies to determine their adequacy and for holding any public meetings that may be necessary.

Implementation and Enforcement

The implementation of the recommendations arising from environmental assessments are considered in two ways:

(i) As a means of fulfilling regulatory requirements such as under the *Health Act* and *Clean Environment Act*.

(ii) As a means of modifying the project or incorporating measures to mitigate environmental problems in the project plans.

In addition, the proponent may be asked to outline a plan to monitor the environment as a condition of project approval, where long-term effects may be important.

Province of Nova Scotia

General Legislation

Both the *Environmental Protection Act* and the *Water Act* provide the legislative authority for carrying out environmental impact studies. Under certain sections of the *Environmental Protection Act* the Minister and the Environmental Control Council are empowered to require additional details with respect to a development proposal. Such requirements can, and often do, include the need for environmental assessment.

Government Policy

All industrial proposals in the province must be accompanied by an application for approval. The requirement is usually for an environmental design rather than an impact study, although the latter is required for large projects.

Guidelines for pit, quarry, and mining operations are currently being prepared, together with *Asphalt Plant Guidelines and Environmental Assessment Guidelines*. In addition, a *Pesticide Control Act* is presently being reviewed as possible legislation.

Administration

Minor projects, or undertakings for which substantial information is available from other sources, will have their proposed abatement concept evaluated for environmental adequacy by staff of the Department.

Major projects or those for which there is a sparsity of information will include an objective to incorporate an environmental impact assessment carried out for the proponent by qualified scientific personnel. The assessment would require that any necessary public involvement be included in the terms of reference for the study. The information will then be reviewed by staff of the Department.

The studies are to be funded by the proponent.

Implementation and Enforcement

Section 8, subsection (1) (*a*) of Chapter 6, of the *Environmental Protection Act* empowers the Minister to develop, co-ordinate, and enforce policies, planning, and programs relating to the preservation and protection of the environment. Also, under section 28, subsection (4) of the Act, the Minister may require an applicant seeking an approval under the section to submit additional information that the Minister considers necessary relating to a proposed plant, structure, facility, undertaking, thing, or waste.

Province of Prince Edward Island

General Legislation

The *Environmental Protection Act* is the principal piece of legislation in this province for pollution control of air, land, and water. The Act has a number of unique features, for example, section 5 (2) gives the Minister the authority to order other departments, boards, commissions, etc., to provide reports relating to pollution and control of pollution, as follows:

> "The Minister may require any public department, board, commission or agency of the province or any officer of the province to investigate and report on any matter related to pollution or the control of pollution."

Government Policy

By Executive Council Minute 16/73 of February 14, 1973, the Department of Environment was made responsible for the preparation of Environmental Impact Statements. All departments and agencies of government were directed to have Environmental Impact Statements prepared by the Department as part of any development proposals where there are environmental issues relating to air, land, and water.

As the majority of programs originated in Prince Edward Island qualify for DREE grants, industry must meet certain requirements of Environment Canada.

Administration

Although there are no specific regulations governing impact assessments, there is an established procedure in the Department for undertaking investigations relating to the environment. A senior environmental Policy Advisor has been appointed in the Administrative Section working under the Deputy Minister. The Environmental Policy Advisor is responsible for the co-ordinating of any environmental assessments carried out by the Department of the Environment. The Policy Advisor is also involved in interdepartmental committee work and projects in which there are environmental considerations.

Implementation and Enforcement

The Department of the Environment has a close working relationship with the Environmental Protection Service of Environment Canada as a means of stipulating environmental requirements.

The continuing monitoring of industry with regards to performance is the responsibility of the Department of the Environment.

Province of Newfoundland and Labrador

General Legislation

At the present time there is no legislation in the province which specifically requires an environmental assessment prior to the construction of a resource development project. However, the Government has recently given approval-in-principle for the drafting of an *Environmental Assessment Act* and accompanying regulations.

Government Policy

The Department of Consumer Affairs and Environment presently requests the proponents of certain major resource development projects to undertake an environmental assessment, on a voluntary basis, prior to beginning any construction work directly related to the project. To date, no such request has been refused. Assistance is provided in drafting appropriate terms of reference and in identifying potential sources of pertinent information. The terms of reference must include consideration of economic, social, and other impacts on the human environment, as well as impacts on the natural environment. Public opinion must be recorded and included in the report. Public review of impact statements is intended to be part of the assessment process, but no assessment has yet reached that stage. The assessment requirements apply to both governmental and private agencies.

Administration

The following is an outline of the proposed assessment process, subject to Government approval. Proposed projects, programs, operational practices, etc. (to be referred to as "actions"), will be reported to the Minister of Consumer Affairs and Environment, whose Department will screen them to determine whether an environmental assessment is to be required. If so, the proponent is required to prepare a brief preliminary environmental feasibility report (tentatively called the "Environmental Preview"), based on current knowledge of project design and existing information on resources and resource use. This report is presently intended for internal Government use only. If the resource data base is sound and if the report indicates no significant harmful impacts, further assessment requirements may be waived by the Minister.

If further assessment is required, leading to the preparation of an impact statement, the Minister will appoint an Advisory Committee chaired by one of his officials and representing all Provincial and Federal Government agencies having a vested interest in the environmental implication of the action. The function of this Committee will be to assist the Department in ensuring that the assessment is based on sound data and that the conclusions contained in the impact statement are valid. The

terms of reference must be approved by the Minister before the assessment begins.

The proponent will prepare the impact statement at his own expense, including the cost of engaging qualified consultants, if necessary. It is anticipated that, in most cases, this detailed assessment will require at least a full year for completion, and perhaps longer. The impact statement will be presented to the Minister and reviewed by the Department with the assistance of the Committee. When it has been deemed satisfactory, the report will be distributed to the public. Following a suitable period of time, a public hearing will be held within the area which would be directly affected by the proposed action, for the purpose of recording public comment on the impact statement and answering pertinent questions from the public. The hearing will be chaired by an independent person or board, who will compile a report and present it to the Minister.

The Minister will present the impact statement and the report on the public hearing to Cabinet, together with recommendations whether it is advisable to allow the action to proceed. Any decisions which must be made regarding licensing for a project or the granting of public funds would be made by Government or the appropriate Minister of the Crown, having the information on environmental impact as well as all other types of information regarding the action and its possible importance to the Province. No such decisions will be made until all of the requirements under the proposed *Environmental Assessment Act* and regulations have been satisfied.

Implementation and Enforcement

At present, certain aspects of the policy proposed above are being followed informally on a trial basis, with respect to several public and private projects. Developers are co-operating voluntarily and the process is still evolving. Considering the time needed for review of the proposed legislation by Government and interested members of the public, it is likely that at least another year will go by before it is ready for presentation to the House of Assembly.

The findings of environmental impact statements are implemented and monitored by means of the established policies and procedures of the Department. Certain industries are required to furnish regular reports concerning the quality of their emissions and effluents. These data are supplemented through sampling programs conducted by the Department itself. The *Department of Consumer Affairs and Environment Act (1973)* identified construction and other activities which require prior approval in writing from the Minister. Such approvals are frequently accompanied by stipulations which can be designed to prevent damage predicted

by an impact statement. The progress of such activities is monitored by officials of the Department with particular reference to the Environmental Control (Water and Sewage) Regulations, 1974, issued under the above-named Act, which establish criteria for the disposal of wastes into sewers and bodies of water. Similar regulations dealing with air pollution and soil pollution are currently in draft form, awaiting promulgation.

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